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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

RE APPLICATION OF

TAKASHI TAKEUCHI, ET AL.

SERIAL NO: 09/778,071

FILED: FEBRUARY 7, 2001

FOR: ULTRASONIC PROBE AND
METHOD OF MANUFACTURING
THE SAME

:

: EXAMINER: RAMANA, ANURADHA

:

: GROUP ART UNIT: 3751

:

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TECHNOLOGY CENTER R3700

AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

In response to the Office Action dated September 11, 2002, please amend the above-identified application as follows:

IN THE SPECIFICATION

Page 4, please amend paragraph at lines 13 to page 6, line 1 as follows:

Hence, we have proposed a structure as shown in FIG. 1D (Japanese Patent Application KOKAI Publication No. 2000-14672) as an ultrasonic probe using single crystal of this kind, and have tried to improve the probe manufacture yield. FIG. 1D shows a cross-sectional view structure of an array probe using a single-crystal vibration element. Electrodes 4 and 5 are formed on both sides of the single-crystal vibration element 1, and a backing material 2 is provided on the lower surface of the vibration element 1. In addition, acoustic matching layers 3a and 3b are formed on the single-crystal vibration element, so that the single-crystal vibration element 1 and the matching layers 3a and 3b are subjected to array processing. The array pitch of the array probe is about 0.1 mm in case where the pitch is

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4/11/03